

Four Argus cameras, each with an external flash unit, are suspended from thin vertical lines. The cameras are arranged in a staggered pattern: one in the upper left, one in the upper center, one in the middle right, and one in the lower right. The word 'Flash' is written in a large, white, cursive font inside a jagged, starburst-like white outline that occupies the left and center of the page.

# Flash

Educational Services Division  
**argus cameras, inc.**



With the modern, "power-packed" flash bulbs, and a flash synchronized camera you can "make like an expert" and take exciting flash pictures anywhere, anytime . . . . indoors or out.

What's more, this combination really makes you the "master" of all photographic situations, because taking flash pictures with your camera is actually as simple as pressing the shutter release!

Yes . . . . the "mystery" of flash photography is gone! Excellent flash pictures are a "cinch" everytime! In three quick steps, sparkling, sharp snapshots are as easy as "popping" a bulb into your flash reflector.

Here's all you need to do . . . . . !

1. Know the speed of the film you are using.
2. Set shutter speed for flash on your camera.
3. Use your favorite flash bulb and select correct "guide number" on the bulb carton.

## **About. . . . FILM SPEEDS**

Film "speed" is simply a way of saying that some films are more sensitive to light, and thus need less exposure than others.

This speed is expressed by a number, and you'll find the one for flash under "Tungsten" on the instruction sheet packed with your film.

Numbers between 80 and 160 or above, indicate "high speed" films, while numbers between 40 and 64 suggest "medium speed" films, and films with speeds from 8 to 24 (some black-and-white, and most color films) are known as "slow speed" films, and require more light for best exposure.

**HIGH SPEED** films are used generally for flash pictures a great distance from the subject, or to capture "peak" action. These films are fine for flash pictures taken inside when a shutter speed of 1/200th or 1/300th can stop moderate action.

**MEDIUM SPEED** films are probably most popular with photo fans for ALL average flash pictures indoors, and whenever flash is used outdoors to supplement daylight.

**SLOW SPEED** films are ideal when you wish to show very fine detail or where you plan to make extreme enlargements from the negatives.

Speed of Film (Tung.)	*Name of Black & White Film	Suggested Uses
High Speed 80-160	Tri-X Ultra Speed Pan Super XX	In large auditoriums, gyms, halls, dim interiors, and for moderate action.
MEDIUM SPEED 40-64	SUPREME PLUS X VERICHROME ALL WEATHER	FAMILY GROUPS, PARTIES, PORTRAITS, HOUSEHOLD PETS, SMALL INTERIORS, ETC.
Slow Speed 10-24	Perutz Persenso  Gaevart Microgran	Copying & close-up work and pictures from which you are going to make extreme enlargements.
	Name of Color Film	
Color  8-20	Kodacolor Ektacolor  Kodachrome Ektachrome Anscochrome	For Color PRINTS only. (620 & similar roll film cameras).  For 2 X 2 SLIDES and PRINTS. (All 35mm cameras).

\*Other brands of film in all speeds also available at your local photo dealer's shop.

# About . . . . SHUTTER SPEEDS

All cameras synchronized for flash are designed so that the flash bulb will fire while the shutter is fully opened and thus allow all available light to pass through to the film.

With an Argus camera, you may wish to check the shutter speed you are using for flash pictures on the chart below to make certain the proper shutter speed is being used with type of bulb you prefer.

CAMERA	BULB		
	Gas-Filled Set flash switch on X or F use 1/100	Wire-Filled Set flash switch on M use any speed (1/25-1/300th)	Electronic Set flash switch on X use any speed W/Color-Matic Model
ARGUS C4			
ARGUS C3	1/50-1/100	1/25*	Any speed W/Color-Matic Model
ARGUS A4	1/50-1/100	1/25	1/25

*\*Use 1/30th instead of 1/25 with C3 if this speed is marked on your shutter speed dial.*

For modified twin-lens type cameras with focusing lenses and for simple box type cameras with fixed focus lenses, the "I" or instantaneous setting is used for flash pictures. Do not use "time" setting on this type camera for flash unless it is on a tripod or firm support, and for best results follow the directions in your instruction book for flash with your particular camera.

ARGUS 40      1/50-1/100

1/25

ARGUS SUPER  
75

Inst. (Instantaneous) setting.  
Follow directions for COLOR-MATIC.

ARGUS 75

Inst. (Instantaneous) setting.  
(Guide number is not needed here,  
but follow flash guide in your  
instruction book.)

P.S.

*The correct shutter speed for flash IS important of course, and the charts above will help, but the batteries in your flashgun are a part of the "team" too.*

*If they are 6 months old, they could be the "guilty culprits" that are robbing you of perfect flash pictures. Why not have your photo dealer check them for you soon?*

# About . . . . TYPE OF BULB

Although there are several flash bulb manufacturers, and a wide variety of bulb shapes and sizes on the market, they "boil down" into a few simple types.

The flash bulb YOU decide to use is really a matter of personal preference. Your camera can be used with many different ones, including electronic flash.\*

Let's meet some of the most popular for use with all cameras, and then you'll know them by "first name" next time you buy a new supply.

**GAS-FILLED BULBS . . . . .** usually called "SM" or "SF"

Popular with owners of cameras similar to Argus 75, box type cameras, and modified twin lens cameras with focusing lens like the Argus Super 75 can be used to stop moderate action at distances not more than 15 feet.

**WIRE-FILLED BULBS . . . . .** all bulbs not gas-filled. Popular for all average flash pictures with most cameras. Give more light at same distance from subject. ("Push-in" bayonet base. .5's, 25's, 8's, etc. and "screw-in" base type. .0's, 11's, 40's, etc.)

**\*ELECTRONIC FLASH . . . . .** specially designed flashgun and power-pack. Gives exceptionally fast flash of light (1/500th or faster). Lasts for hundreds of flashes. Can be used with Argus late Model COLOR-MATIC cameras, and all other cameras with X or O delay.

## NOTE:

*Colored bulbs are used with color film.*

*Clear or amber ones with INDOOR TYPE COLOR FILM and blue bulbs with OUTDOOR Manufacturers directions with color film of your choice provide details on proper use of filters and tinted bulbs.*

# About . . . . .GUIDE NUMBERS

## "The Key to Flash Exposures"

Now you're really "in the know" regarding film, flash bulbs and how to set your camera for flash. The **DISTANCE YOU ARE FROM THE SUBJECT** is the other **KEY** to flash pictures "on the button" everytime!

. . . . . AND it's really just that simple, too!

We expect light from our flash to be "brightest" when the bulb is close to the subject, and "weaker" as we move back. To give you proper lens openings at each distance, bulb manufacturers provide a **GUIDE NUMBER** on the bulb carton.

We've reproduced below part of a sample flash carton with guide numbers so you can see just how it looks.

Shutter speed	Slow	Medium	High
up to 1/50	-16	40-64	80-
100	90	175	250
200-300	100	135	190
	100	105	14

**Example:**  
 With Plus X film,  
 a No. 25 type flashbulb,  
 and shutter set at 1/25,  
 the GUIDE No. is 175.

With subject 11 ft.  
 from camera, divide  
 11 into 175 and set  
 lens closest to the  
 answer.

Distance 11 ft.

$$\frac{11}{175} = 15.9$$

Set lens at F:16  
 (Nearest to 15.9)

With color, the guide number may appear under name of film; rather than "speed",

Guide numbers for color are smaller ("slower" film), but procedure is always the same. Divide guide number by distance you are from your subject, set lens as close to this number as possible, and you're ready for "action".

# **And LAST. . . . (but not least)**

## **Watch those close-ups . . . . . !**

At close distances, the guide number may give a small lens opening not found on your camera (like F:22, or F:32).

If this happens often with bulbs of your choice, you may use smaller bulbs or a single thickness of handkerchief or frosted acetate over the flash reflector to cut down the light. (With one thickness you set your lens one "stop" LESS than the guide number suggests . . . . . use F:16 when guide number suggests F:22.)

## **Shield the Flash . . . . . !**

Many camera fans use a plastic shield over the flash reflector. An accessory plastic shield which is "two-sided" and has a frosted side, may also be used to cut down the light as suggested above.

## **Shoot Flash Outdoors . . . . . !**

You will find that flashgun mighty handy for "bad weather" pictures outdoors too! !

Next time you can't get the sun to "cooperate", try the flashgun on your camera. Use flash to light your subject on dark, cloudy days, or to "fill-in" the shadow side of subject's face in sunlight. (Follow guide number, then close the lens approximately one ADDITIONAL "stop" . . . . . for example . . . . . from F:8 to F:11.)

## **Keep it Simple . . . . . !**

Settle down to 1 or 2 types of film and flash bulbs instead of "hopping" from one type to another. REMEMBER THE GUIDE NUMBER for each, and watch good flash pictures with your camera become truly SIMPLE!

## EXPLANATION OF TERMS

Film speed	Also known as "ASA exposure index" or "emulsion speed."
F stop	Lens openings like 3.5, 4, 5.6, 8, 11 etc. Also called "aperture." (3.5 is a large opening. . .F:8, 11 etc. are smaller)
Tungsten	Artificial light like flash, flood bulbs, mazda bulbs, etc.
Color prints	Album size prints or enlargements made from 35mm color slides, or larger roll films in color.
Slides	Positive color transparencies to project on screen and use also to make color prints.
Peak action	The moment when action is "frozen" or stopped and really motionless. Many excellent action pictures are snapped when the motion is at its "peak", so shutter speeds as low as 1/100th can be used.